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(54) Title: METHOD AND MEDIA FOR PRINTING AQUEOUS INK JET INKS ON PLASTIC SURFACES

(57) Abstract: Single coatings onto non-absorbent substrates on which aqueous ink jet inks are jetted with subsequent application of heat, without the use of reactive species in the ink and in the media used as a substrate coating. The heating rapidly drives the water of the ink into the coating, with the rest of the water from the ink being lost by evaporation. The material is then subject to immediate application of a sealing lacquer, which is preferably water-based and which may be dried and possibly cross-linked by heat to give a very resistant surface.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B41M7/00 B41M5/00							
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According to	International Patent Classification (IPC) or to both national classification	ion and IPC					
B. FIELDS							
IPC 7	zumentation searched (classification system followed by classification $B41M$	т супров)	·				
Documentati	on searched other than minimum documentation to the extent that su	ch documents are included in the fields se	arched				
Electronic da	ata base consulted during the international search (name of data base	and, where practical, search terms used)					
	PO-Internal, WPI Data						
C. DOCUME	ENTS CONSIDERED TO BE RÉLEVANT						
Category °	Citation of document, with indication, where appropriate, of the rela-	vant passages	Relevant to claim No.				
X	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 11, 6 November 2002 (2002-11-06) & JP 2002 187340 A (FIIRUDOSAN:KK 2 July 2002 (2002-07-02) abstract & DATABASE WPI Derwent Publications Ltd., London AN 2002-700587 abstract US 4 966 804 A (WAKASHIMA TAKASHI 30 October 1990 (1990-10-30) the whole document	, GB;	1-30				
X Furt	her documents are listed in the continuation of box C.	X Patent family members are listed	in annex.				
° Special ca	ntegories of cited documents :	*T* later document nublished after the Inte	rnational filling date				
'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international fling date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but		**T* later document published after the international filling data or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. **L** document member of the same patent family					
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2	2 March 2004	01/04/2004					
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Whelan, N					

INTERNATIONAL SEARCH REPORT

Internat — Application No
PCT/IT 03/01113

tion) DOCUMENTS CONSIDERED TO BE RELEVANT	101/1L 03	·
Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
EP 1 251 012 A (ASAHI GLASS CO LTD) 23 October 2002 (2002-10-23) paragraph '0012! paragraph '0015! paragraph '0025! paragraph '0038! paragraph '0044! paragraph '0047!		1-30
US 6 135 654 A (JENNEL PER) 24 October 2000 (2000-10-24) the whole document	1-30	
US 6 361 847 B1 (BERLIN MIKAEL ET AL) 26 March 2002 (2002-03-26) column 3, line 30 - line 63 column 4, line 32 - line 53	1-30	
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	EP 1 251 012 A (ASAHI GLASS CO LTD) 23 October 2002 (2002-10-23) paragraph '0012! paragraph '0015! paragraph '0025! paragraph '0038! paragraph '0044! paragraph '0047! US 6 135 654 A (JENNEL PER) 24 October 2000 (2000-10-24) the whole document US 6 361 847 B1 (BELIN MIKAEL ET AL) 26 March 2002 (2002-03-26) column 3, line 30 - line 63 column 4, line 32 - line 53	EP 1 251 012 A (ASAHI GLASS CO LTD) 23 October 2002 (2002-10-23) paragraph '0012! paragraph '0015! paragraph '0025! paragraph '0044! paragraph '0044! paragraph '0047! US 6 135 654 A (JENNEL PER) 24 October 2000 (2000-10-24) the whole document US 6 361 847 B1 (BERLIN MIKAEL ET AL) 26 March 2002 (2002-03-26) column 3, line 30 - line 63 column 4, line 32 - line 53

INTERNATIONAL SEARCH REPORT

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Internat Application No
PCT/IT 03/01113

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
JP 2002187340	Α	02-07-2002	NONE		
US 4966804	A	30-10-1990	JP	1141782 A	02-06-1989
			US	5022947 A	11-06-1991
EP 1251012	A	23-10-2002	JP	2002307810 A	
			JP	2002321448 A	05-11-2002
			EP	1251012 A	1 23-10-2002
			· US	2002196322 A	1 26-12-2002
US 6135654	Α	24-10-2000	AU	715152 B	32 20-01-2000
			AU	1842097 A	20-08-1997
			BR	9707189 A	06-04-1999
			CA	2239721 A	\1 31-07 - 1997
			CN	1209770 A	
			ΕP	0876257 A	\1 11-11-1998
			JР	2000503920 T	04-04-2000
			NO	983260 A	15-07-1998
			US	6102536 A	15-08-2000
			WO	9727053 <i>F</i>	31-07-1997
US 6361847	B1	26-03-2002	AU	7463698 <i>F</i>	N 08-12-1998
			BR	9808801 A	
•			ΕP	0981437 A	
			ĴΡ	2001525769 1	
			WO	9851493 A	